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Is perceived athlete leadership quality related to team effectiveness? A comparison of three professional sports teams

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Abstract

Objectives. Researchers have argued that leadership is one of the most important determinants of team effectiveness. The present study examined the extent to which the perceived quality of athlete leadership was related to the effectiveness of elite sports teams.

Design. Three professional football teams (N = 135) participated in our study during the preparation phase for the Australian 2016 season.

Methods. Players and coaching staff were asked to assess players' leadership quality in four leadership roles (as task, motivational, social, and external leader) via an online survey. The leadership quality in each of these roles was then calculated in a social network analysis by averaging the indegree centralities of the three best leaders in that particular role. Participants also rated their team's performance and its functioning on multiple indicators.

Results. As hypothesized, the team with the highest-quality athlete leadership on each of the four leadership roles excelled in all indicators of team effectiveness. More specifically, athletes in this team had a stronger shared sense of the team's purpose, they were more highly committed to realizing the team's goals, and they had a greater confidence in their team's abilities than athletes in the other teams. Moreover, this team demonstrated a higher task-involving and a lower ego-involving climate, and excelled on all measures of performance.

Conclusions. High-quality athlete leadership is positively related to team effectiveness. Given the importance of high-quality athlete leadership, the study highlights the need for well-designed empirically-based leadership development programs.

Key words: peer leadership; shared leadership; social network analysis; sports performance; football; rugby; leadership roles

Introduction

It has long been argued that effective *leadership* is central to team functioning and high performance in elite sport [1]. Historically, *vertical* leadership (i.e., where the leader is positioned hierarchically above the team) has been foregrounded in both research and practice. In line with this vertical approach, organizational leadership research has focused on the influence of managers on employees and sports leadership research has examined the impact of coaches on athletes.

In the last decade, however, a radical shift has occurred away from this traditional emphasis on vertical leadership towards the idea that leadership can, and should, be *shared* [2, 3]. This approach asserts that leadership does not only emanate from the formal leader, but also from team members more generally. In line with this alternative view, shared leadership is argued to be a more powerful predictor of team effectiveness than vertical leadership [4]. In organizational research, a number of studies have corroborated these claims by demonstrating an overall positive relationship between shared leadership and team performance [2, 5, 6].

One of the first coaches to pioneer this shared leadership approach in sports teams was Ric Charlesworth. This was something he achieved by abolishing the captaincy role in the Australian women's hockey team and creating a leadership group instead [7]. Amongst other benefits, he observed that this strategy encouraged different people to make complementary contributions to team functioning. As a result, members of the leadership group had responsibilities for portfolios that covered a range of spheres — from on-field tactics and training to off-field concerns, such as building a closely-knit team. More generally, the creation of a shared leadership structure was a central aspect of a team culture that promoted sharing of responsibility. Supported by his leadership group, Charlesworth steered his teams to multiple successes, including World Cup titles, Commonwealth Games titles, bronze and gold Olympic medals, and four Champions Trophy gold medals.

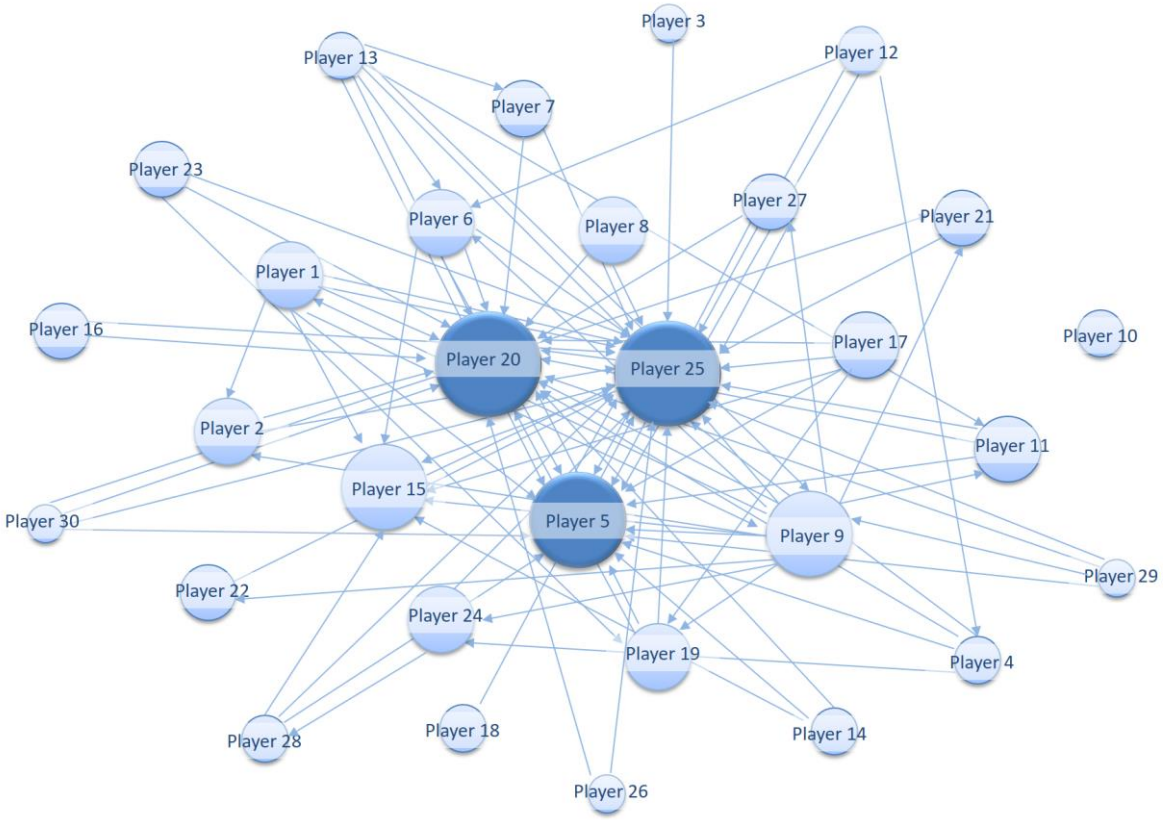
In line with such developments, researchers have also become increasingly interested in the contribution of athletes to leadership (for a review on athlete leadership, see [8]). In this regard, several experimental studies have demonstrated that athlete leaders within the team can impact their team members' confidence in the team, their intrinsic motivation, and their objective performance [9, 10]. Furthermore, it has been shown that teams with high-quality athlete leadership are characterized by high levels of team confidence [11] and strong task and social cohesion [11, 12].

Given the beneficial effects of athlete leadership for team effectiveness, it seems crucial to capitalize on the leadership potential of athletes. Traditionally, coaches and players have tended to look to the team captain to provide leadership (at least in the first instance), but a shared leadership perspective suggests that this might not always be the best strategy. Consistent with this point, Fransen, Vanbeselaere, De Cuyper, et al. [13] found that often informal leaders, rather than the team captain, were perceived to be the best athlete leaders of the team. To ensure effective leadership it therefore seems to be crucial to take all team members' views into account when appointing a leader.

Recent research has pointed to the value of using Social Network Analysis (SNA[14]). Social network analysis views leadership relationships in terms of (a) nodes (representing the individual athletes within the network) and (b) ties (representing athletes' leadership perceptions; e.g., such that a tie directed from athlete A to athlete B indicates the extent to which athlete A perceives athlete B to be a good leader). An example of such a leadership network is presented in Figure 1. As a result, SNA can represent the distribution of leadership among group members and can also identify the emergence of multiple leaders [15]. Furthermore, this technique allows researchers to map contours in the leadership *quality* of athletes, thereby moving beyond previous studies which tended to make only binary distinctions between designated leaders and non-leaders. This is important because designated

leaders do not necessary fulfill their leadership function well or better than other team members. More generally too, it is the quality with which a leadership role is enacted that is most critical for a leader's effectiveness. Accordingly, in the present study, the ties between the players in a leadership network represent perceptions of leadership *quality* (from very poor to very good). In other words, the strength of a tie in the network from Athlete A to Athlete B indicates the extent to which Athlete A perceives Athlete B to be a good leader.

Figure 1. *Visual representation of the task leadership quality network of Team 1, in which only the strongest ties (i.e., scores of 9 or 10, or in other words, very good task leadership) are shown.*



When it comes to leadership of professional teams, the expectations of players and coaches are understandably high: they expect the leader to give tactical advice, to motivate other team members, to provide a good atmosphere off the field, and to represent the team to external bodies (e.g., club management, sponsors, and media) [16]. Yet because these tasks require quite different qualities, it is unlikely that one player will excel in all these different leadership tasks. Moreover, appointing only one leader to perform them might carry the risk

that if that leader is absent (e.g., due to injury or suspension), the team will find itself without leadership in these various domains. Accordingly, sharing leadership responsibilities among team members would seem to be a sounder and more sustainable strategy [8].

In an attempt to address these issues, Fransen, Vanbeselaere, De Cuyper, et al. [13] distinguished between four leadership roles that players can occupy (i.e., two 'on-field' and two 'off-field' roles): (1) the task leader, who helps the team to focus on the team goals and who gives his/her teammates tactical advice during the game; (2) the motivational leader, who motivates his/her teammates to perform at their best and who channels teammates' emotions effectively; (3) the social leader, who builds a good team atmosphere and serves as a confidant for his/her teammates; and (4) the external leader, who represents the team when dealing with external parties. More comprehensive definitions of these roles can be found in Appendix A. Fransen, Vanbeselaere, De Cuyper, et al. [13] also observed that a shared leadership structure in which different players are appointed to these four different leadership roles leads (a) to higher levels of team confidence, (b) to higher identification with the team, and (c) to higher team ranking, compared to a single team captain model. Furthermore, shared leadership *within* each leadership role (such that each is performed by a number of individuals rather than just one) has been found to be positively related to both task and social cohesion [17]. Accordingly, it has been suggested that SNA can be used to inform the appointment of high-quality athlete leadership teams into each of the distinct leadership roles [8].

With this in mind, the present study used SNA to identify the leadership structure in three professional sports teams and sought to identify the relationship between the quality of athlete leadership and the team's effectiveness. When examining a team's athlete leadership quality, previous studies have focused on the average leadership quality of all team members [18, 19]. However, not all players have the skills required to lead, and more importantly, as Hardy, Eys and Loughead [20] observed, when a team has a large number of leaders this can

prove to be problematic (e.g., because it leads to confusion and miscommunication). At a methodological level too, a measure of average leadership quality in a team can be distorted by a varying number of team members who exert little or no leadership. Accordingly, in the present study, we did not examine average team leadership, but rather the leadership quality of the leadership team in each of the four distinct roles identified above. In light of the above reasoning, our main hypothesis was that team functioning and performance — which are the most critical indices of leadership effectiveness [21] — would be enhanced to the extent that teams had high-quality athlete leadership teams across these four domains of leadership activity.

Methods

Procedure

In the preparation phase of the 2016 season, three top-division Australian football teams, one from the Australian National Rugby League (NRL; playing Rugby League Football) and two from the Australian Football League (AFL; playing Rugby League Football), were contacted to enquire about their willingness to participate in the present research. After providing consent, the players and coaching staff of the three teams were given a questionnaire that was tailored to their team (i.e., listing the names of all the team members whose leadership was to be assessed), and took about 30 minutes to complete. Coaching staff and players who did not respond received a reminder two weeks later and a second reminder after four weeks. Data collection took place over a six-week period between December 2015 and January 2016. As a reward for participating in this study, we provided the coaching staff of the three teams with a feedback report at the end of the study that included the results from the leadership analyses. APA ethical standards were followed in the conduct of the study and full confidentiality was guaranteed. The study was approved by the ethics committee of the academic institution of the first author.

Participants

Players and coaches from three Australian professional sports teams participated in the study. All were male. One team was from the National Rugby League (playing Rugby League Football: Team 1; *N* = 35; 30 players and 5 coaching staff) and two teams were from the Australian Football League (playing Australian Rules Football: Team 2; *N* = 50; 43 players and 7 coaching staff; and Team 3; *N* = 59; 47 players and 12 coaching staff). In total, the full coaching staff of all teams completed the questionnaire, as well as 29 players from Team 1 (response rate of 97%), 37 players from Team 2 (response rate of 86%), and 45 players from Team 3 (response rate of 96%). Team members rated the leadership quality of all team members, including non-responders.

Players in Team 1 were on average 25.7 years old (*SD* = 3.5) and had been playing for their team for 4.03 years (*SD* = 3.24); players of Team 2 were on average 25.3 years old (*SD* = 4.8) and had been playing for their team for 6.00 years (*SD* = 4.37); and players of Team 3 were on average 23.3 years old (*SD* = 3.3) and had been playing for their team for 3.51 years (*SD* = 3.30). The average team tenure of the coaching staff was 5.40 years (*SD* = 5.08) for those in Team 1; 5.00 years (*SD* = 3.00) for those in Team 2; and 2.92 years (*SD* = 1.73) for those in Team 3.

Measures

The questionnaire included measures of leadership quality, team functioning, and performance.

Leadership quality. With regard to leadership quality, we created four leadership quality networks for each team, one for each leadership role (task, motivational, social, and external). As noted above, previous research has tended to make binary distinctions between leaders and followers [22]. In such binary networks the leadership perceptions are represented by either a tie (Athlete A perceives Athlete B as a leader) or no tie (Athlete A does not

perceive Athlete B as a leader), without providing any information on the quality of that leadership.

As an alternative to this, we therefore sought to create networks in which ties can vary in strength. In such leadership networks, the strength of a tie represents the perceived quality of a person's leadership, ranging from very poor to very good leadership. After reading the definitions of each role (as presented in Appendix A), this involved participants rating the leadership quality of each player in each leadership role on an 11-point Likert scale, from 0 (*very poor leader*) to 10 (*very good leader*). Our data thus yielded four role-specific leadership quality networks for each team (i.e., a task, motivational, social, and external leadership quality network). Figure 1 presents the task leadership quality network of one of the participating teams (Team 1). Although we used all the scores in our calculations, for the sake of clarity we only present the strongest ties (i.e., scores of 9 or 10 representing very good task leadership) in Figure 1.

To identify the team's best leaders in a particular leadership role, we used *indegree centrality*, a node-specific measure that refers to the average strength of a node's incoming ties (i.e., the average leadership quality of an athlete, as perceived by his teammates). This measure reflects leaders' importance in the team and their capacity to influence other team members [23]. As presented in the task leadership network in Figure 1, the larger the node of a particular athlete and the more central its position, the higher the quality of the individual's leadership as perceived by other team members (i.e., the higher the athlete's indegree centrality). To account for the possibility that the perceptions of players and coaching staff differ, we assessed the perceptions of players and coaching staff separately (in contrast to previous research which has tended to focus only on athletes' perceptions [19]).

Furthermore, in contrast to previous research, we did not assess the average leadership quality in the entire team for reasons outlined in the Introduction. Instead, we focused on a

limited set of key leaders by investigating the leadership quality of leadership teams. Specifically, to ensure an equal and reliable comparison across the three teams, we chose to compare the leadership quality of the three best leaders in each role. As an example, with respect to the task leadership quality for Team 1 (presented in Figure 1), we used the average leadership quality of Players 25, 20, and 5, who are positioned most centrally (as a result of their high indegree centrality) and thus are perceived to be the best task leaders in their team.

Team functioning. We included five different indicators of team functioning. To assess participants' sense of shared purpose in their team, we used the three-item scale developed by Carson, Tesluk and Marrone [24] (sample item: "In our team, we discuss our team's main tasks and objectives to ensure that we have a fair understanding"; Cronbach's α = .81). To assess participants' determination to reach team goals, we used the five-item scale developed by Klein, Wesson, Hollenbeck, et al. [25] (sample item: "I am strongly committed to pursuing the team's goals"; Cronbach's α = .75). To assess team confidence, we used a short version of the Collective Efficacy Questionnaire for Sports [26], which included the highest-loading item on each of the five subscales: Ability, Effort, Persistence, Preparation, and Unity (e.g., "To what extent do you believe that, in the next part of the season, your team has the ability to demonstrate a strong work ethic"; Cronbach's α = .91). To assess task- and ego-involving climate, we used the 20-item Peer Motivational Climate in Youth Sport Questionnaire [27] (sample item relating to task-involving climate: "On this team, most athletes help each other to improve"; sample item relating to ego-involving climate: "On this team, most athletes make negative comments that put their teammates down"). Cronbach's alphas for the subscales of task- and ego-involving climate were .92 and .68, respectively. Finally, based on previous work [24], we used a four-item scale to measure participants' perceptions of voice in their team (e.g., "Everyone on our team has a chance to participate and provide input"; Cronbach's α = .76). Responses on all items were made on 7-point Likert scales

ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Scale means were computed by averaging scores on all scale items.

Performance. As an objective measure of performance, we used the teams' final place in the overall league ranking and in the finals series of the preceding season (2015). Because the teams were still in the preparation phase of the 2016 season, we had no objective measure of the current performance, and used player and coaching staff perceptions of current performance. First, all players rated both their own personal performance and their team's performance since the start of the 2016 season on 11-point Likert scales, ranging from 0 (*extremely poor*) to 10 (*extremely good*). By averaging the ratings of all players, we obtained two measures of player-reported performance (personal and team performance). Second, the coaching staff rated the performance of each athlete in the team. By averaging the coaching staffs' ratings of all players, we obtained a measure of coach-reported team performance.

Results

Table 1 presents the perceived leadership quality of the athlete leadership teams in each of four roles (task, motivational, social, and external). The findings clearly demonstrate that Team 1 was perceived by both players and staff members to have the highest-quality athlete leadership team in each of the four leadership roles, followed by Team 2 and then Team 3.

Table 1. Leadership quality of the appointed athlete leadership teams[a] in the three teams, including the associated standard deviations in parentheses.

	Perceived by…	Team 1	Team 2	Team 3
Task leadership quality	Players	**8.94 (.42)**	8.13 (.16)	*8.12 (.40)*
	Staff	**9.67 (.12)**	8.95 (.46)	*8.22 (.83)*
Motivational leadership quality	Players	**8.74 (.39)**	8.28 (.17)	*7.67 (.22)*
	Staff	**9.47 (.31)**	8.48 (.72)	*8.08 (.38)*
Social leadership quality	Players	**8.24 (.48)**	7.78 (.63)	*7.10 (.13)*
	Staff	**9.07 (.70)**	*7.81 (.46)*	*7.81 (.38)*
External leadership quality	Players	**8.69 (.07)**	8.08 (.13)	*7.72 (.71)*
	Staff	**9.67 (.12)**	*8.14 (.29)*	8.42 (.67)

Note. The highest mean values across teams are highlighted in **bold**. The lowest are in *italics*.
[a] The athlete leadership team on a particular role includes the three athletes with the highest perceived leadership quality (i.e., highest indegree centrality) on that particular role. The perception of the players reflects the average of the three highest-scoring athlete leaders as perceived by the players, whereas the perception of the coaching staff reflects the average of the three highest-scoring leaders in their perception.

Next, we examined whether the leadership quality of each of the athlete leadership teams was associated with team effectiveness. Appendix B presents the correlations between all the included indicators of team functioning and performance perceptions, as well as their mean values and standard deviations, with Cronbach's alphas on the diagonal. Table 2 presents the mean values and standard deviations of all indicators of team effectiveness for the three assessed teams. We used one-way ANOVAs and LSD post-hoc tests to assess the significance of the differences between the three teams. Findings confirmed our hypothesis in demonstrating that Team 1 — which was perceived as having the best athlete leadership quality — excelled on all indicators of team effectiveness and on player-reported performance, coach-reported performance, and objective performance. Indeed, the only measure on which there was not a significant difference between the three teams was perceived provision of voice.

Table 2. Indicators of the team's effectiveness across the three teams, including the associated standard deviations in parentheses.

	Team 1 (Highest athlete leadership quality)	Team 2 (Moderate athlete leadership quality)	Team 3 (Lowest athlete leadership quality)	One-way Anova *F*	Post hoc test T1 – T3 *p*	Post hoc test T1 – T2 *p*	Post hoc test T2 – T3 *p*
Indicators of team functioning							
Shared purpose	**6.12 (.72)**	5.66 (.80)	*5.57 (.90)*	5.00**	0.003	0.02	0.57
Goal commitment	**6.69 (.59)**	*6.30 (.94)*	6.35 (.79)	2.74°	0.05	0.03	0.73
Team confidence	**6.51 (.51)**	6.37 (.63)	*5.70 (.89)*	16.83***	< 0.001	0.39	< 0.001
Task-involving climate	**5.95 (.51)**	5.45 (.65)	*5.06 (.74)*	19.39***	< 0.001	0.001	0.004
Ego-involving climate	**3.81 (.83)**	*4.39 (.74)*	4.08 (.58)	6.49**	0.08	< 0.001	0.03
Voice[a]	5.30 (.84)	**5.37 (.89)**	*5.26 (.94)*	.18	0.83	0.75	0.55
Perceptions of current performance (2016 season)							
Players' perception of their own performance (0-10)	**7.03 (.98)**	6.65 (1.75)	*6.24 (1.38)*	2.74°	0.02	0.28	0.21
Players' perception of the team's performance (0-10)	**8.59 (1.12)**	7.78 (.76)	*5.82 (1.92)*	37.62***	< 0.001	0.03	< 0.001
Staff's perception of each player's performance (0-10)	**8.01 (1.17)**	*5.05 (2.37)*	6.09 (1.12)	25.82***	< 0.001	< 0.001	0.004
Objective performance 2015 season							
Place in the overall league ranking	Top 3	Mid 3	Bottom 3				
Last game in the finals series	Finals	Semi-finals	Not qualified				

** $p < 0.01$; *** $p < 0.001$; ° $p = 0.07$

[a] Further scale reliability analyses revealed that the Cronbach's alpha of this scale (.76) would be further improved up to .82 if one item of the scale was deleted. When using the improved voice scale, the mean values would be 5.53 (*SD* = .84) for Team HR; 5.49 (*SD* = .87) for Team MR; and 5.47 (*SD* = 1.01) for Team LR. These values do confirm our hypotheses.

Note. With exception of the performance ratings, the mean values are based on the perceptions of both athletes and coaching staff. All scores range between 1 and 7, except the three performance ratings, which range between 0 and 10. The highest mean values across teams are highlighted in **bold** (with exception of ego-oriented climate for which the lowest values are highlighted, as this variable is negatively valenced); the lowest values are in *italics*.

Discussion

The present findings support the hypothesis that professional sporting teams that have the highest-quality athlete leadership outperform other teams on various indicators of team effectiveness. More specifically, in the team with the best leadership group the athletes (a) had a clearer shared sense of the team's purpose, (b) were more highly committed to realizing the team's goals, and (c) had greater confidence in their team's abilities. In addition, this team had (d) a more task-involving climate (i.e., players supported each other to improve) and (e) a less ego-involving climate (i.e., there were fewer conflicts between players). Furthermore, this team excelled on (f) player-reported, (g) coach-reported, and (h) objective performance measures.

These findings corroborate previous research that has highlighted the importance of athlete leaders for team effectiveness (for a review, see [8]). For example, leadership quality in a team has previously been linked to team members' identification with their team, team cohesion, and team performance (as assessed by competition ranking [13, 18]). Experimental studies have corroborated these correlational findings by demonstrating that when an athlete leader is confident (rather than unconfident), this confidence spreads throughout the team so that other team members are not only more confident themselves but also perform better [9, 10].

Yet speaking more particularly to the importance of *shared* leadership, it would appear that establishing a structure in which different leadership teams take responsibility for different leadership roles (task, motivational, social, and external) helps to create an optimal team environment. Thus it was not the old-fashioned model of vertical leadership that delivered positive outcomes, but rather a new model of leadership in which these responsibilities were distributed within the team [4, 28].

In this regard, the present study is the first to assess the leadership structure on four different roles in professional sporting teams and to demonstrate the link between the quality

of leadership in these roles and various indicators of team effectiveness. Because the perceptions of all team members were taken into account when deciding on the best leaders on each role, these leaders are very likely to be accepted as leaders by the team and hence the effectiveness of their leadership interventions will be maximized.

We should emphasize that, in contrast to previous research, we did not assess the average leadership quality in the entire team both because this measure may be skewed by the presence of players who do not have the skills or the motivation to lead and because research has shown that the presence of too many leaders in a team can be problematic [20]. Accordingly, we opted to study leadership teams, by focusing on the three best leaders in each role. As such, our work adopts a hybrid approach, combining the strengths of both shared leadership (e.g., shared responsibility), and vertical leadership (e.g., consistent communication).

Despite these strengths, the study is not without limitations. First, the power of our analysis at the team level is limited as a result of the fact that we only studied three teams. Nevertheless, we note that finding elite teams that are willing to participate in such research is extremely challenging. Indeed, for this reason, many previous studies have examined only one team [22].

Second, our study is cross-sectional in nature, which prevents us from inferring causality from the results. As a result, we cannot establish whether it is high-quality athlete leadership that drives team effectiveness or the other way around (e.g., in ways suggested by research on the romance of leadership [29]). Going forward, this is an issue that could fruitfully be addressed through longitudinal research to examine how changes in leadership quality over time feed into unfolding changes in team effectiveness.

A third limitation is that the present study did not control for differences in team size. In particular, Team 1, which was participating in the National Rugby League of Australia, had considerably fewer team members than either Team 2 or Team 3, both of which were

participating in the Australian Football League. Although these differences in team size are inherent to the type of sport, it is possible that they have confounded our results. For example, laboratory research suggests that smaller teams demonstrate more direct and efficient intra-team communication [30]. It should be noted, however, that, to our knowledge, no significant link between team size and any of the variables assessed in the current study has ever been demonstrated in a sports context. Furthermore, the size of the leadership teams that we studied was the same in all three studies.

Given the importance of high-quality athlete leadership, we would also argue that this research demonstrates that there is clear value in, and need for, well-designed empirically-based leadership development programs in sport. In this regard, the categorization of Fransen, Vanbeselaere, De Cuyper, et al. [13], which identifies and explores the four different leadership roles (i.e., task, motivational, social, and external), provides an expanded framework for enhancing leadership both on and off the field and may therefore prove helpful in designing these leadership development programs. Nevertheless, given that this categorization does not claim to be comprehensive, future research might examine whether athlete leaders can also occupy — and see themselves as occupying — leadership roles that are different from those examined in the present study.

Conclusion

The present findings indicate that the quality of athlete leadership teams is closely related to team effectiveness and performance. By promoting shared leadership, coaches can inspire and further strengthen their athlete leadership teams in order to maximize the team's effectiveness. In this they corroborate the observations of Vince Lombardi (the coach of the Green Bay Packers who led them to five NFL championships in the 1960s) that "the strength of the group is the strength of the leaders" [31]. Equally, we would conclude that the strength of

the leaders is the strength of the group, and that it is the inter-relationship of these elements that is the key to team performance.

Practical Implications

- The quality of the athlete leadership teams is related to team effectiveness and performance.
- Establishing a structure of shared leadership, in which different leadership teams take responsibility for different leadership roles, can help coaches create an optimal team environment.
- Because social network analysis takes into account the perceptions of all team members, using this technique to identify the leadership structure in a team can ensure that appointed leaders are accepted as leaders by their team and this in turn will generally enhance the effectiveness of their leadership.
- Because the quality of athlete leaders' leadership is directly related to team effectiveness, this is important to address through structured leadership development programs.

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475 Appendix A. *The definition of the four leadership roles, as presented to the participants, based*

476 *on the research of Fransen, Vanbeselaere et al. [13]*.

Leadership role	Definition
Task leader	A task leader is in charge on the field; this person helps his team to focus on the team goals and helps in tactical decision making. Furthermore, the task leader gives his teammates tactical advice during the game and gives them guidance if necessary.
Motivational leader	The motivational leader is the biggest motivator on the field; this person encourages teammates to go to any extreme; this leader also puts fresh heart into players who are discouraged. In short, this leader steers all the emotions on the field in the right direction in order to maximize team performance.
Social leader	The social leader has a leading role off the field; this person promotes good relations within the team and cares about having a good team atmosphere, for example, in the dressing room, on the bus, or during social activity. Furthermore, this leader helps with conflicts between teammates off the field. They are a good listener and are trusted by their teammates.
External leader	The external leader is the link between his team and the people outside the team; this leader is the representative of the team when dealing with the club management. If communication is needed with media or sponsors, this person will take the lead. This leader will also communicate the views of the club management to the team, for example, regarding sponsoring, club events, and contracts.

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Appendix B. *Correlation matrix including means and standard deviations of all included indicators of team effectiveness. Cronbach's alphas are presented in italics on the diagonal.*

	M (SD)	1.	2.	3.	4.	5.	6.	7.
1. Shared purpose	5.77 (.82)	*(.81)*						
2. Goal commitment	6.34 (.85)	.18	*(.75)*					
3. Team confidence	6.20 (.77)	.18***	.37***	*(.91)*				
4. Task-involving climate	5.49 (.74)	.47***	.38***	59***	*(.92)*			
5. Ego-involving climate	4.19 (.71)	-.03	-.38***	-.06	-.06	*(.68)*		
6. Voice	5.23 (.90)	.44***	.18	.30**	.49***	-.04	*(.76)*	
7. Perception of the own performance	6.59 (1.46)	.11	.16	.27**	.23*	-.08	.27**	
8. Perception of the team's performance	7.20 (1.84)	.34***	.21*	.38***	.47***	.16	.12	.37***

*$p < .05$; **$p < .01$; ***$p < .001$.

Note. Only the scores of the athletes are included in the current analysis. All scores range between 1 and 7, except the two performance ratings, which range between 0 and 10.